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ABSTRACT

This report assesses the impact on Michigan's 29 community colleges of projects funded in 1983-84 through the Community College Job Training and Retraining Investment Fund, a program for funding the state's community colleges so that they will contribute to the economic rehabilitation and development of Michigan. Part I details the financial sources for the Investment Fund program including the State Investment Fund, and college, federal, and other funds. Part II highlights disbursement activities for equipment, personnel and staff training, facilities, curriculum development, community needs assessment, local economic development activities, and supplies. This section also includes specific case examples of expenditures. Part III provides information on the citizens served by the program, including 31,000 students who received direct benefits from the activities initiated by the Investment Fund. Part IV describes ways in which fund projects contributed to the strengthening of college relations with business and industry; to job training and retraining; and to local development efforts. Report conclusions indicate that the two most important funding needs of the colleges in implementing the Investment Fund programs were the start-up costs of obtaining state-of-the-art equipment and new personnel; and maintenance and supplies for high technology equipment. Appendices include executive summaries of the 1983-84 Investment Fund programs in Michigan's community colleges. (HB)

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MICHIGAN COMMUNITY COLLEGES

JOB TRAINING AND RETRAINING

INVESTMENT FUND

1983-84 INVESTMENT FUND PROJECTS - IMPACT STATEMENT

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JC 850 176

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INTRODUCTION

Public Act No. 263 of 1982 introduced a new and highly productive concept in the funding of Michigan's twenty nine community colleges with the Community College Job Training and Retraining Investment Fund. This investment in the community colleges was predicated on the belief that these institutions would be significant contributors to the economic rehabilitation and development of the State of Michigan.

This report is prepared pursuant to the requirements of Public Act No. 263 of 1982 which specifies that "the State Department of Education, in cooperation with Michigan's public community and junior colleges, shall submit a report describing each grant released under the community and junior college Job Training and Retraining Investment Fund and the accomplishments of the projects". This document was prepared at the request, and under the aegis of: the Department of Education; Superintendent of Public Instruction, Phillip E. Runkel and Supervisor, Community College Services Unit, James H. Folkening. The coordination of institutional responses and the preparation of this report were accomplished by the staff and the efforts of the Michigan Community College Presidents' Economic Development and Job Training Network Steering Committee.

This document, 1983-84 Investment Fund Projects - Impact Statement is an aggregate of the responses of the community colleges to the Report Format for 1983-84 Investment Fund Projects developed by the Michigan Community College Presidents' Economic Development and Job Training Network Staff Committee and Steering Committee. It is designed for general distribution to interested parties as an analysis of the impact of the Investment Fund upon the community colleges and the communities they serve.

This is the second year that an impact statement has been completed for the Investment Fund Project. In an effort to demonstrate to the reader the cumulative effect of the Investment Fund Project over time, this year's report compares the 1982-83 project to the 1983-84 project in all areas of analysis. As this report shows, the Investment Fund Project has taken on added dimensions - has generated additional revenue sources and continues to influence the economic development of every community college community.

PART I

Funding Sources

In December, 1983 each of the twenty nine community colleges prepared a proposal outlining its intent to participate in the Investment Fund Program. These proposals were reviewed by a panel as specified in Public Act No. 263. All twenty-nine colleges qualified for participation in an appropriation totalling $3,280,423.

This appropriation became an investment by the State of Michigan as it encouraged significant additional funding from both internal college sources and external sources at the federal and local levels.

Table 1

Composite Report of Invested Funds for 1982-83 and 1983-84

	1982-83	1983-84	Total
State Investment Fund	$ 2,999,200	$ 3,280,423	$ 6,279,623
College Funds	1,619,570	2,363,805	3,983,375
Federal Funds	1,329,907	957,355	2,287,262
Other Funds	932,202	1,901,762	2,834,164
Total	$ 6,880,879	$ 8,503,345	$ 15,384,424

Results

State Investment Fund: The 1983-84 $3,280,423 state investment was used to leverage additional investments from other sources. Between 1982-83 and 1983-84 the State Investment Fund increased by 9 percent. Total funds for the project, however, increased more than 23 percent. This large increase in program funding would not have been possible without the initial State Investment Fund.

College Funds: Twenty-six colleges elected to direct $2,363,805 of their internal funds toward the Job Training and Retraining Program in 1983-84. This is a 45 percent increase from the amount of college funds invested in 1982-83. The large increase in college funds invested suggests a high rate of growth of Job Training and Retraining Programs as well as a high level of commitment of community colleges in re-directing their resources to job training and retraining programs.

Federal Funds: The combination of Investment Funds and internal college monies allowed for a maximum utilization of available federal funds which totalled approximately $957,355. Several colleges indicated that without the Investment Fund they would not have been able to provide sufficient matching funds to take advantage of the available federal funding.

Other Funds: The combination of the three previously described sources allowed several colleges the ability to successfully solicit funds from external sources. These funds came from corporations and benefitting employers, private and college foundations, and other cooperating institutions. The category "Other" funds shows an increase of 104 percent between 1982-83 and 1983-84. This increase not only indicates an amazing growth, but it also indicates a phenomenal increase in public and private involvement.

Every college provides an excellent example of effective leveraging of state resources to acquire additional funds from other sources. In many cases, community colleges nearly doubles the state's investment.

PART II

Disbursement Activities

The utilization of these funds indicates the types of activities that were encouraged by this program. The institutions were asked to detail the expenditures made as a result of appropriations. Although total expenditures in Table 2 are slightly greater than the total revenues in Table 1, Table 2 serves to indicate the general patterns of funds utilization.

Table 2

Reported Disbursements According to Activity Categories

	1982-83	1983-84	Total
Equipment	$ 3,602,536	$ 5,854,156	9,456,692
Personnel	833,642	1,273,611	2,107,253
Staff Training	63,732	153,080	216,812
Facilities (Modification/Rent)	299,813	83,789	383,602
Curriculum Development	55,641	104,338	159,979
Continuing Education/Professional Development for Business, Industry and Labor Personnel	34,556	16,382	50,938
Community Needs Assessment	57,125	70,783	127,908
Recruitment and Placement	32,994	22,447	55,441
Local Economic Development Activities	170,325	118,251	288,576
Supplies	24,224	333,348	357,572
Other	210,000	1,101,713	1,311,713
Total	$ 5,384,588	$ 8,798,550	$ 14,516,486

Equipment

All of the colleges utilized Investment Fund generated monies to purchase equipment. These expenditures accounted for $5,854,156. Nearly 50 percent of all monies spent on equipment were derived from sources other than the Investment Fund. A total of $3,510,260 from other sources was spent on equipment.

The colleges have universally requested funding for needed state-of-the-art equipment to viably serve the needs of Michigan's businesses and industries, and more importantly the people of Michigan. This funding begins to meet that need in a manner not possible through the normal state appropriation mechanism. The great majority of instructional equipment purchases were related to the new and emerging high tech or computer-oriented jobs which require sophisticated training and retraining programs. The most frequently described projects included the new language of technology as the colleges entered the world of CAD/CAM, Robotics, Numerical Control, Word Processing and other computerized functions so necessary to our state's economic and human resource development.

Case Example: It is quite common among colleges to use Investment Funds to purchase equipment to assist in the training of individuals for careers in Michigan's high tech industries. The Investment Fund has permitted Jackson Community College to upgrade training equipment in order to meet the industrial standards in the automotive, electronics, and machine shop fields. The purchase of new equipment has provided Jackson Community College's technical training programs with improved teaching and training quality. The net result is more current and viable skills for the Jackson community workforce.

Case Example: Computer aided design equipment has assisted Kellogg Community College to more effectively serve their students and their community. The word processing and data processing laboratories have been expanded to accommodate additional students and satisfy enrollment demands. The high tech equipment that has been added to the Automated Manufacturing Laboratory has up-graded the engineering technology program. These equipment additions would not have been possible without the Investment Fund.

Case Example: The Investment Fund has given Washtenaw Community College the resources to purchase computer aided drafting, word processing and pharmacy technology equipment. Washtenaw Community College has worked closely with industry and received support and assistance from businesses such as Digital Equipment Corporation, Ford Motor Company, and St. Joseph's Hospital. Without the Investment Fund, the College would not have been able to serve area businesses seeking high tech training for their employers. The Numerical Control Program, for example, has been able to expend its on-site offerings to two new Ford plants and include new CNC processes.

Personnel and Staff Training

The Cost of additional personnel and the upgrading of existing staff were reported by many of the colleges totalling $1,426,691. The most frequently reported staff additions were for instructional specialists in the new complex training disciplines which the Investment Fund added to curricular offerings of Michigan's community colleges.

Some colleges concerned themselves with services related to training and retraining. Several colleges employed recruiting specialists trained in assessing individual needs and assisting in career planning. Placement services were greatly enhanced at a number of colleges with an increase in staff to help the newly-trained to become employed. Other colleges employed specialists to assist their communities in economic development while others retrained and reassigned existing staff to perform these duties.

The Investment Fund allowed the expansion of college staff while providing needed instructional, human service, and economic development aid to their people and communities. Again, this additional staffing was not possible under the traditional funding program.

Case Example: The technical faculty members at Kalamazoo Valley Community College who work in drafting, machine tools, and related areas have been challenged to develop professional skills to meet changing high tech needs. Existing staff has been retrained in the areas of computer assisted drafting, computer assisted manufacturing, computer integrated manufacturing, and automated manufacturing technology by the Hewlett-Packard Corporation. The continuation of the Investment Fund will ensure that similar opportunities are provided for other faculty members.

Case Example: To remain in touch with the industrial and professional world, instructors must be continually updated and trained in the newest equipment. As a direct result of the Investment Fund, Schoolcraft College was selected to participate in the first cooperative venture ever permitted at Ford Robotics and Automations Applications Consulting Center. Schoolcraft's robotics faculty were trained in the most comprehensive facility of its kind. This interrelationship between college and industry benefitted Schoolcraft College, Ford Motor Company, and the community as a whole.

Facilities (Modification/Rent)

Colleges reported expenditures of $83,789 for the modification or procurement of facilities to house the Investment Fund activities. It is likely that this expenditure will fall slightly next year, then begin to level off, as colleges secure permanent facilities for Investment Fund activities.

Curriculum Development

Expenditure in Michigan's Community Colleges on curriculum development nearly doubled between 1982-83 and 1983-84 programs. In 1982-83, expenditures were $55,641 and in 1983-84 they grew to $104,338. Curriculum development is a direct result of the Investment Fund Program. Highly trained instructors and state-of-the-art equipment warrants an expansion of curriculum in order to meet the growing needs of the industrial and professional community.

Case Example: Many colleges are developing curriculum specially designed to meet individual community needs. With assistance of the Investment Fund, Mid Michigan Community College has been able to offer specialized workshops and classes to the general public. These specialized classes and workshops include Microcomputers in Farming, Dealership Mechanics, and Computer Assisted Drafting. These programs are helping the local business community keep up with today's growing technology.

Community Needs Assessment

A vital part of any economic development program is to know a community's strengths and weaknesses. Such knowledge can be obtained through "Community Need Assessments". Expenditures by community colleges on this activity in 1983-84 totalled $70,783. This was nearly a 24 percent increase from the previous year. This type of expenditure will most likely continue in order to insure the greatest degree of program effectiveness.

Case Example: Private consultants were contracted by Kirtland Community College to assess the need for woodworking science and hospitality recreation services programs within the community. Telephone interviews were conducted with 22 potential employers of woodworking science technicians and 74 potential employers of hospitality recreation service technicians. These employers were chosen from a list of 500 establishments in a 13 county area.

The findings of this community needs assessment were extremely valuable to Kirtland Community College and to the community. The study indicated that there is a need for these categories of trained individuals. The study also revealed that many potential employers were interested in giving some of their time and expertise to the development of curriculum for training programs.

Local Economic Development Activites

Local economic development activities are of importance to all of the community colleges in the state. Almost all of the expenditures from the Investment Fund can be considered related to economic development. However, colleges reported spending $118,225 for this specific activity.

Case Example: The state's first Community Growth Alliance (CGA) was established in Macomb County through the cooperative efforts of the Macomb County Economic Revitalization Development Committee, Chambers of Commerce and other economic development groups. Following this designation, the CGA was authorized by Governor James Blanchard to set up a Small Business Assistance Center (SBAC). The Macomb Community College contribution of $25,000 in cash and in-kind services helped make possible the activities which assisted more than 300 small businesses in the area. These activities included seminars, financial packages, and managerial and technical assistance in the areas of business planning, exporting, marketing, and federal and state contract procurement and sales.

Case Example: Muskegon Community College has organized a Small Business Development Center in cooperation with local businesses, government and community agencies. The center provides services for those interested in starting or improving the management of a small business. Computer laboratories, classes and special workshops also provide a natural link between Muskegon Community College and local economic development efforts.

Case Example: West Shore Community College hosted and co-sponsored with West Central Michigan Private Industry Council, Northwest Michigan Employment and Training Consortium, and the National Alliance of Business, an economic development workshop. This program covered topics of importance to those involved in economic development and marketing. The economic development workshop provided participants with helpful information and ideas on subjects such as marketing mix, promotion, establishing new markets, advertising, and product distribution. This program was made possible because of grant support such as the Investment Fund.

Supplies and Other

Two activities which showed large increases in expenditures were "Supplies" and "Other". This increase in due to Investment Fund project expansion. Colleges are acquiring new and complex high tech equipment that is expensive to run and maintain. In addition, the cost of training users and trainers of the state-of-the-art equipment is also expensive.

Some of the items included in "Supplies" and "Other" expenditures were computer software, printing, consulting, postage, travel, equipment installation, and equipment maintenance.

PART III

Citizens Served

The ultimate test of the value of this investment by the State of Michigan is the numbers of citizens receiving direct benefit from this appropriation. The colleges were asked for a quantitative assessment of direct benefits to students as a result of the Investment Fund.

Table 3

Activity	Number of Students Involved In 1983-84	Number of Students Anticipated in 1984-85
Training - Retraining		
Customized Training Programs	7,108	9,759
Regular College Credit Courses	18,392	21,637
Non-credit Continuing Education Programs	1,373	2,005
Other Services		
Supportive Services (Counseling, Career Placement, etc.)	4,164	6,398
Any Other	688	755
TOTAL	31,725	40,554

Table 4

Number of Students Involved in 1982-83	16,963
Number of Students Involved in 1983-84	31,725
difference	14,762
percent increase	87%
1982-83 Projection of 1983-84 Student Involvement	26,550
Actual Student Involvement in 1983-84	31,725
difference	5,175
percent change	19%

Results

1983-84 Involvement: The colleges reported that more than 31,000 students received direct benefit from the activities initiated by the Investment Fund Porgram. More than half of these individuals participated in the Regular College Credit Courses: a total of 18,392 students. Support Services were utilized by 4,164 students. Several colleges, however, were unable to determine the number served through counseling, career placement and planning and other individual services.

Anticipated 1984-85 Involvement: The number of individuals involved in the 1983-84 Investment Fund Program was 31,725. This figure shows a 19 percent increase over anticipated involvement projected in 1982-83. At this time, anticipated student involvement in 1984-85 is 40,554. If the Investment Fund Program, however, follows the same extraordinary growth trend it did in 1983-84 then 1984-85 involvement will be 19 percent greater than anticipated. This means student involvement could reach 48,259 in 1984-85 (Table 4).

PART IV

Business/Industry/Labor Relations

The colleges almost universally reported that the Investment Fund has continued to strengthen their working relationship with local businesses and industries. The fund provided the necessary capital for the colleges to purchase state-of-the-art equipment and to employ new and/or update existing staff. This has significantly enhanced their image as legitimate resources and dependable providers of training and retraining for business/industrial employers, especially in the high-tech areas.

With Investment Fund backing, Delta College was awarded a $45,000 federal grant for its Labor and Management Development Center. This center is designed to carry out the innovative concept of improving management/labor relations. The Saginaw News wrote:

> "The Center will set up a council to nurture the relationship between employees and managers and spark a local climate. Saginaw will be a step ahead of other communities across the county when the Area Labor Management Committee gets underway in early 1985."

This is just one more example of how the Investment Fund Program has expanded the role of Michigan's community colleges in economic development.

Job Training and Retraining

The major focus of the Investment Fund Program is job training and retraining. The enrollments obtained as a result of the fund have previously been depicted in Table 3. Many of the colleges provided more detail on the results of fund-supported instructional activities. Many community colleges have been advertising the different specialized training and retraining courses they are able to offer due to the Investment Fund Programs such as the following from Northwestern Michigan College:

> "Technology has resulted in a better way to travel, launder, and design machine parts. Most recently, quick and efficient computer aided drafting has begun to replace the table..."

The Investment Fund Program has trained and retrained college students and industry employees for careers in high tech businesses. The Investment Fund Program, however, is also responsible for assisting in the training of intermediate level students. Some community colleges have assisted in the technical training of these young individuals by working with high schools.

Paul J. Blinkilde, President of Master-Cast Company writes to Philip J. Gannon, President of Lansing Community College:

> "Last fall, Master-Cast contacted Don Olson and Helen Webb of your fine staff regarding a Statistical Process Control training program for selected Master-Cast personnel. This led to the teaching of the subject program by Lansing Community College instructors to thirty-four Master-Cast personnel. The content of this course was considered excellent by all who attended. The instruction was also excellent. We appreciate very much the fact that Lansing Community College continues to keep its pulse on the needs of industry and responds by providing programs to those industry needs."

Involvement in Local Economic Development Efforts

Most colleges indicated that they have become an important resource in the economic development of their community. Indirectly, all aspects of the Investment Fund Program will benefit the economic development of Michigan communities. However, the Report Format, Impact Statement from Grand Rapids Junior College illustrates the typical attitudes of Michigan's Community Colleges toward local economic development:

> "Communications and cooperation between business, industry, and education, are crucial if we wish to create and maintain a healthy economy. Community colleges have recognized this and have made assisting business and industry a major part of their mission. In the spring of 1983, the Office of Ecomic Development was formed with its major purpose being to serve the business and industrial community. This office provides computerized training and consultation for businesses and industry. Since its inception this office has provided training and consultation to more than 30 companies and 3,000 employees. Because of these efforts the college has expanded its outreach efforts and created a strong, on-going linkage with the business community."

CONCLUSION

Since the initiation of the Job Training and Retraining Investment Fund, community colleges have demonstrated that they have the expertise, credibility and creativity to respond to the needs of Michigan's business, industry, and labor force. Community colleges have maximized the financial impact of the Investment Fund Program by using those monies to leverage other internal and external funds to the extent that the job training and retraining effort was more than doubled in one year.

The two most significant funding needs of the community colleges that have emerged in implementing this program are: 1) for start up costs of state-of-the-art equipment and new personnel and; 2) for maintenance and supplies which go hand in hand with high tech equipment.

The Investment Fund has a direct benefit for approximately twenty (20) percent of the individual citizens served by Michigan's twenty-nine community colleges. This is almost twice as many as in 1982-83.

As a result of the Investment Fund, a stronger bond has been created with business, industry and labor. The financial participation of corporations and employers is an excellent example of this new bond.

The role of Community Colleges in Job Training and Retraining has been greatly enhanced by this new concept of funding. It has provided for necessary curricular expansion which would not have been possible under traditional funding methods. This initiative has removed a major impediment (lack of funds) so that now community colleges can take a major role in the economic development of their communities.

The community colleges appreciate this new creative legislative initiative. The Investment Fund has provided these institutions with the opportunity to demonstrate that they have been able to contribute effectively and significantly to the job training and retraining needs of Michigan.

MICHIGAN PUBLIC COMMUNITY AND JUNIOR COLLEGES 1983-84

1 Alpena Community College
Alpena
2 Bay de Nac Community College
Escanaba
3 Charles Stewart Mott Community College
Flint
4 Delta College
University Center
5 Glen Oaks Community College
Centreville
6 Gogebic Community College
Ironwood
7 Grand Rapids Junior College
Grand Rapids
8 Henry Ford Community College
Dearborn
9 Highland Park College
Highland Park
10 Jackson Community College
Jackson
11 Kalamazoo Valley Community College
Kalamazoo
12 Kellogg Community College
Battle Creek
13 Kirtland Community College
Roscommon
14 Lake Michigan College
Benton Harbor
15 Lansing Community College
Lansing
16 Macomb Community College
District Offices, Warren
Center Campus, Mt. Clemens
South Campus, Warren
17 Mid-Michigan Community College
Harrison
18 Monroe County Community College
Monroe
19 Montcalm Community College
Sidney
20 Muskegon Community College
Muskegon
21 North Central Michigan College
Petoskey
22 Northwestern Michigan College
Traverse City
23 Oakland Community College
Central Office, Bloomfield Hills
Auburn Hills Campus, Auburn Heights
Highland Lakes Campus, Union Lake
Orchard Ridge Campus, Farmington
Southeast Campus System
Royal Oak and Southfield
24 St. Clair County Community College
Port Huron
25 Schoolcraft College
Livonia
26 Southwestern Michigan College
Dowagiac
27 Washtenaw Community College
Ann Arbor
28 Wayne County Community College
Detroit
29 West Shore Community College
Scottville

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1983-84 JOB TRAINING AND RETRAINING INVESTMENT FUND

SUMMARIES

ALPENA COMMUNITY COLLEGE

Alpena Community College received $80,000 in 1983-84 from the Job Training and Retraining Investment Fund. The purpose of this funding was to establish a Resource Development Center and Placement Office at the college to serve the five counties of Northeastern Michigan - Alcona, Alpena, Iosco, Montmorency, and Presque Isle.

The college has been able to establish a Resource Development Center for Economic Expansion. We have also been able to establish a Placement Office in conjunction with the Center. We have been fortunate to receive a grant from the Kellogg Foundation to assist small businesses and we have tied this in with the Center.

The Center is now providing the following services in Northeastern Michigan:

1. Placement services
2. Small business development
3. Financial counseling for expansion
4. Computer support services
5. Education and training services
6. Public information coordination

The college has collaborated in these projects with the Alpena Chamber of Commerce, the Alpena Industrial Development Corporation, the Northeastern Michigan Manpower Consortium, and Northeast Michigan Council of Governments. The project has provided great services to businesses in Northeast Michigan.

BAY DE NOC COMMUNITY COLLEGE

Purpose

The purpose of the college's 1983-84 proposal was to strengthen the base the college had established through its 1982-83 proposal activities. Included were: job training and retraining, assistance to business and industry, and providing assistance to unemployed job seekers.

Results

Job Training and Retraining: The college's Contracting with Business and Industry program (students are taught job skills from participating business and industrial firms) was expanded to 179 participating businesses and industries. These sites offer training opportunities for individuals on an annually recurring basis. Student placement averages. Currently 98 students are enrolled in the program.

Assistance to Business and Industry: Providing assistance to existing business and industry was a vital component of the total economic development effort put forth by the college. Identifying, then addressing local business needs allowed businesses an opportunity to strengthen their economic position and thus maintain or increase the number of persons they employ.

Through the efforts of Bay de Noc Community College's economic development personnel and other community leaders, Gafner Machine, Inc. relocated their manufacturing plant to Gladstone, MI. This relocation into larger facilities

Bay de Noc Community College (continued)

enabled Gafner Machine, Inc. to increase their production of wood harvesting equipment and, significantly, to begin production of underground mining equipment. During the past year, Gafner's employment has increased over 100 percent. Currently they employ 66 individuals. Operation ACTION U.P., Houghton, MI recently announce Gafner Machine, Inc. was one of three recipients to be selected as "U.P. Industry of the Year."

Other assistance provided to business and industry included: held four business luncheons with area business leaders to determine their economic development/job training-retraining needs for which the college could provide assistance. As a result, the college:

* Co-sponsored a "How to Start a Small Business" workshop for 39 participants. Subsequently, 15 have started new businesses in the area.

* Provided thirteen weeks of management training for area supervisory and mid-management personnel.

* Held a "How to Hire" workshop for five area businesses.

* Held six "Computer Proficiency" workshops for 168 participants.

* Completed a computerized economic/demographic statistical data bank which will be used by business and industry, the Central Upper Peninsula Planning for Area Development Agency, Bay de Noc Community College's Office of Economic Development and other appropriate Upper Peninsula agencies to promote and assist in the location of new business in the area.

Assistance to Unemployed Job Seekers: Established and maintained a job search and placement service that provides assistance to the unemployed who have marketable skills and are willing to relocate. A listing of abbreviated job resumes was sent to 9,000 prospective employers who are located in a six state area. Whenever a potential employer wished to further examine a job candidate, the employer called the college toll free and requested a complete resume of the candidate. The college responded to 298 employer requests.

Conducted 59 workshop sessions for the unemployed. Participants received instruction and assistance in: resume writing, interviewing, stress management, job retraining counseling, general health assistance, educational finance assistance, motivation, educational counseling, mental health, legal aid, personal finance, and job club. A resource guide booklet was prepared and distributed to the unemployed.

C.S. MOTT COMMUNITY COLLEGE

The computer laboratory was installed with the idea of serving vocational occupations with high demand in the labor market, and those occupations with the largest numbers of jobs in the labor force. According to the "Michigan Employment Outlook-1985", a publication of the Michigan Employment Security Commission, accounting, data processing, electronics, computer assisted design,

C.S. Mott Community College (continued)

robotics, mechanical engineering technicians and automobile repair are among the fields that have current and projected high demand for employment. The office occupations, which include secretaries, clerks, bookkeepers, cashiers, office machine operators and several other groups, are the largest group in the labor force in Michigan, are projected to occupy an even larger potion of the total labor market in the future.

The aforementioned occupational areas. which correspond to college occupational programs have incorporated the computer in the work environment to such a large extent, that computer training appropriate to the occupational area has become a standard requirement for employment.

The new computer laboratory has the capability to use three operating systems including CPM, Apple and IBM. This capability allows the college to provide appropriate computer instruction in several fields rather than creating several "dedicated" laboratories for limited purposes.

The major result or benefit is that students seeking employment for the first time will have a better opportunity to become employed when their skills match up better with job opportunities.

DELTA COLLEGE

In 1983-84, Delta College received $80,000 from the Community College Job Training and Retraining Investment Fund. The focus of all expenditures under this program was to help the College reduce obstacles to improved employment and business opportunities in our three-county district. The projects undertaken under this program and the results are as follows:

$44,152 to operate the Quality of Work Life Center and continue program development to improve labor-management relations in the Tri-County area. The qualified staff have continued to provide resources to the Area Labor-Management Advisory Council. Accomplishments during the past year have included: the development and distribution of 500 QWL manuals, the development of a QWL newsletter with a mailing list of approximately 3,500 organizations, labor-management teambuilding workshops for approximately 250 persons, a public QWL Introductory Seminar attended by 100 persons, and the organizational assessment of approximately 300 employees at four firms; County Substance Abuse Services, Saginaw Transit Systems, Continental Fibre Drum, and ITT, Inc. Follow-up surveys to the organizational assessments indicate there has been a reduction of labor-management conflict, an increase in communication between labor and management, and an increase in the quality of service and products. The QWL Center is now a viable community resource which will significantly increase its impact on the community during the next year.

$9,100 to purchase computer software and word processing for personal computers. Approximately nineteen (19) different types of software were ordered. The computers with word processing capabilities arrived in late 1983. Experimentation with the software took place, with the computers going on-line during the summer 1984. As a result of this purchase, approximately 480 word processing secretarial students are receiving training which will provide them

Delta College (continued)

with greater flexibility and an easier transition into employment. Additionally, class capacities in word processing can now be increased for greater efficiency, as a result of the instructional software, and word processing can be offered in even more curricula in the future.

$26,748 to purchase instructional equipment for the refrigeration, heating and air conditioning programs. During 1983-84, instructional equipment was purchased and installed in Delta College's off-campus center; the Midland Industrial Training Center. Utilization of this location allowed Delta College to effectively extend instruction into the industrial and commercial areas. As a result, the refrigeration, heating and air conditioning course offerings increased from sixteen (16) to twenty-six (26) classes. During the last year, 1,800 credit hours were generated, and approximately 230 students received training in the industrial and commercial areas of refrigeration, heating and air conditioning.

GLEN OAKS COMMUNITY COLLEGE

The Job Training and Retraining Investment Funds received by Glen Oaks Community College for 1983-84 were utilized for the six projects listed below. Summaries of the budget and the benefits derived from the curricular improvements are given as Addendums A and B respectively.

1. The Machine Tool Technology program was brought up-to-date. Curricular offerings were expanded to include Computer Aided Machining (CAM) courses.

2. Training in the Welding Technology program was brought up-to-date and expanded through the purchase of Multi-Process Welding Stations.

3. The development of the Associate Degree in Nursing (ADN) program, was made possible through consultative services. The college will be submitting its final report to the State Board of Nursing during the Fall of 1984. The college expects to receive approval and plans to implement the program in May of 1985.

4. The Computer Aided Drafting (CAD) Laboratory was created enabling the college to provide up-to-date and expanded training in this program. Experiments at linking the CAD and CAM projects were attempted by students and faculty.

5. A "Computer Applications Laboratory" was created. This lab will be utilized by all departments of the college, but especially by Accounting and Agribusiness. Expanded use by the Science, Business Management and Data Processing departments is scheduled for the Fall, 1984 semester.

6. The Business and Industry Laison program was enthusiastically received by businesses. This program was created to provide personalized two-way communication on training program availability for business and industry. We were able to only "scratch the surface" in 1983-84. This program is in need of further development and expansion to Phase II in 1984-1985 in order to continue a job that was only just begun in 1983-84.

Glen Oaks Community College (continued)

A detailed Summary of these six projects follows. Addendum A of this proposal summarizes the federal, local and college foundation in-kind dollars which have helped us to provide significant additional support to these state funded projects.

Machine Tool Technology

A major area of investment of the 1983-84 JTRIF grant funds was for the updating of our Machine Tool Laboratory. One full-sized milling machine that was presently in our laboratory was converted to a Computer Numerically Controlled (CNC) mill. The conversion package was purchased from a local manufacturer, Wells Manufacturing, Inc. of Three Rivers, Michigan. Two Computer Aided Machining (CAM) teaching centers that can be modified to instruct both lathe and drill press operations were also purchased and installed (see Addendum A for the itemized listing of investments).

Two new courses were added to the Machine Tool Technology curriculum, with a total of 50 enrollments expected through Fall Semester, 1984. In addition, approximately 40 apprentices in the Glen Oaks Tool and Die or Machinist programs have benefited from demonstrations. The college also held a "CAD/CAM Open House" and CAM teaching stations. Approximately 150 representatives from business and industry viewed demonstrations and received information about training opportunities.

Welding Technology

During the 1983-84 year, the Welding program underwent major revisions in both program structure and content. The addition of multi-process work stations greatly improved the ability of the college to flexibly and efficiently provide instruction at one location. More diversified and relevant training is now possible with the additional stations. We are now able to offer multiple sections of welding in an "open-lab" setting. We are thus able to meet the needs of more students with fewer sections of welding. The equipment purchased is identical to the most commonly used up-to-date equipment found in manufacturing firms in the college's service area.

The benefits of this type of equipment are reflected in the growth in enrollment. Last year, over 80 students were enrolled in our Welding program.

As we anticipated, the metals fabricating industry mentioned in last year's proposal did expand operations. Grumman/Olson, Omc/ will be providing 300-400 additional jobs to Michigan over the next several years. Many of the new jobs at Grumman/Olson will require up-to-date welding skill training. The college has been in close contact with the management of this firm to identify their specialized training needs. We are also cooperating with another large custom metal fabrication employer in the area that has tripled in size over the last three years. This manufacturer is also seeking trained welders.

We are including in the 1984-85 grant a request to expand the lab to two more stations in order to complete our laboratory. Several more stations also will enable us to train larger groups of workers at one time and to expand our present class sizes.

Glen Oaks Community College (continued)

Associate Degree In Nursing (ADN)

The funds provided for the Associate Degree in Nursing (ADN) program were utilized as outlined in the 1983-84 proposal. A full-time nursing faculty member was hired to develop the ADN program. This project has been completed and is scheduled for the Michigan Board of Nursing review and final approval in October of this year.

Two consultants were hired to assist in the development of the conceptual framework and philosophy. This was accomplished through a series of workshops with our existing nursing faculty. Programs at four other colleges were reviewed. Eight possible clinical sites were visited and evaluated. Several meetings were held with the State Board of Nursing.

Course syllabi are in the process of being prepared for the eight new courses required for the program. The College plans to fully implement the ADN program in May of 1985.

Computer Aided Drafting (CAD)

One-half of the existing area in our Drafting laboratory was modified into a Computer-Aided Drafting (CAD) room with the 1983-84 grant. The completed lab now has seven CAD systems in operation.

The investment in expanding the CAD systems has enabled the college to reduce the amount of time our lab is open while providing instruction to more students. This has helped to free our instructor to teach other classes. He will be our primary instructor for Statistical Process Control (SPC) classes for area auto suppliers during 1984-85.

We expect to double our enrollment in the CAD program this year. Two introductory classes can now be offered whereas prior to the grant, only one was possible. The department held an open house in the Spring of 1984 that featured the new CAD laboratory. This was attended by approximately 150 area manufacturers representing 40 to 50 businesses. Glen Oaks also offered a specialized training program in CAD to 35 employees from the area's most rapidly growing firm, Grumman/Olson, Inc. This manufacturer is doubling its Sturgis operations and was in need of CAD training for its expanding engineering department.

Computer Applications Laboratory-Accounting and Agribusiness

Accountants and Agribusiness, students as well as students in all other departments will be trained in the many applications of the microcomputer for their professions in our new Computer Applications (CAP) Laboratory. Students in this program will be able to work in pairs in class at the 11 microcomputer stations now in this lab.

Software applications for accounts payable, receivable, and cost and profit projectioning have been purchased for use by the Accounting students. The lab was designed to include a variety of the microcomputer models most commonly found in businesses.

This new CAP Laboratory has relieved the tremendous pressure on our Computer Principles and Theory Laboratory. It has allowed for a much more favorable amount of time to be available for student study and experimentation that is required outside of regular classroom lecture hours.

Glen Oaks Community College (continued)

Microcomputer applications in existing business courses became part of the curriculum during the Winter semester of 1984. Over 180 students have benefitted to date. There were also two special workshops for farm operators on Financial Planning this past year. Further, a new course titled, "Software Applications for Microcomputers" was developed and will utilize this laboratory beginning with the Fall Semester 1984. Another new course titled, "The Microcomputer in the Small Business", also was developed and will be offered for the first time during September and October of this year. Anticipated enrollment in the new courses is projected at 80 to 90 students for the 1984-85 academic year. Enrollment in other classes utilizing this multi-purpose lab is projected at 300 students.

Business And Industry Liaison

Undoubtedly one of the real surprises resulting from the 1983-84 grant was the tremendous response from business to the visits by our Business and Industry Liaison person. We found that the many small to medium-sized businesses in our area are in need of the personalized attention given to them. Someone actually came to their doorstep who wanted to help them with their training and retraining needs. We are working feverishly to provide the many specialized training programs that have been requested by businesses as a result of the response to the service.

As noted in the report on this project (see Addendum C), 101 visitations were made to area business and industry by the laison person. Information was exchanged on currently available programs and the college's willingness to provide customized training. The training that resulted from this project is as follows: 6 supervisor's seminars, 2 customized CAD workshops, 1 safety course, 2 Agribusiness seminars and Statistical Process Control training at General Motors for a faculty member. Projects presently being worked on are welding training for one of the areas most rapidly growing manufacturers, a principle of robotics seminar, a plant maintenance worker program, and a continuation of the specialized seminars for supervisors.

This project was only just begun in January of 1984 and we believe it needs to be continued beyond the start-up stage. We are asking that this project be continued through the 1984-85 grant to enable the college to visit at least half of the manufacturing firms in the college service area by the end of this year.

GOGEBIC COMMUNITY COLLEGE

The forest products industry is now the largest economic activity in Michigan's Upper Peninsula and is in the process of substantial expansion and growth. Investment of $790 million by Mead Paper Company, Weyerhauser Company, and Champion International who will open a $500 million paper mill in 1986 speak well for the growth of the industry. Pulpwood production in the U.P. for 1982 was reported as 979,000 cords in a Michigan State University research bulletin and they estimate an 82% increase in production by 1990. The new Champion International mill will require an estimated 2,000 cords per day when in full production. The 1984 Michigan Directory of Producers, Truckers, Brokers and Dealers produced by the Michigan DNR lists 199 producers

Gogebic Community College (continued)

and truckers of raw logging materials in the six counties of the western U.P. served by Gogebic Community College; this represents approximately 692 loggers and operators of equipment. Logging today is a highly mechanized operation performed largely by small producers and requiring skilled labor to operate and maintain the equipment. In addition, there are 160-200 mechanics employed by various dealers and repair shops.

Gogebic Community College proposes to begin a new program in the fall of 1985 to train heavy equipment and diesel mechanics and heavy equipment operators in one and two year programs to support the growing forest products industry. Along with full time training, a concurrent effort to retrain and upgrade presently employed mechanics and operators will be instituted. Based on replacement needs and a growth factor of 15% annually, there exists a need for 45 to 60 heavy equipment/diesel mechanics and 50 to 60 equipment operators each year. For the wester U.P., this number of job openings would likely be higher for at least several years due to increased logging activities. Over the two year period 1985-1987, Gogebic Community College proposes to train 25 to 50 heavy equipment/diesel mechanics and 50 to 75 heavy equipment operators. This number could be increased if labor market demands should dictate a further need.

The results of this program will provide equipment dealers, manufacturers, saw mills and raw material producers in the forest products industry with skilled personnel to meet their needs. This program will contribute to a reduction in the number of displaced workers and unemployed who currently total 6,025 in the six county area of the western U.P. The average unemployment rate of 17.3% for these six counties is far above the state average of 11.3% for May 1984.

Funds requested for this project total $196,812 of which $82,575 will be used to match federal vocational funds for needed equipment.

GRAND RAPIDS JUNIOR COLLEGE

Last year Grand Rapids Junior College provided education and training that helped prepare more than 5000 people for employment in the Grand Rapids area. These included 300 people trained in the College's JTPA funded Occupational Training program and 557 who completed their training in the College's Occupational Education Division. Well over 2000 people took one or more classes at the College to improve their job skills. In addition to on-campus activities the college provided more than 30 company-specific on-site training programs to more than 3,000 current employees.

The Job Training and Retraining Investment Fund has proven to be one of the most important resources available to Grand Rapids Junior College in its efforts to meet the training and retraining needs of the employers and employees in the Grand Rapids area.

While JTRIF funding represents a small portion of the total budget of the College, it makes it possible for the College to respond directly and immediately to the needs of area businesses. The College's history of successful training activities has resulted in an even greater level of requests for help compared to last year at the same time.

Grand Rapids Junior College (continued)

The College used 1983-84 JTRIF funds to purchase computer assisted drafting (CAD) equipment used to train over 200 people prior to career entry and to upgrade the skills of many more current employees. To properly conduct the training, College staff first had to receive intensive training themselves. JTRIF helped pay some of the costs of training workshops and seminars attended by GRJC staff.

The technology changeover in manufacutring from manually controlled machines and processes to computer controlled machines and processes, including robotics, began in earnest in the Grand Rapids area within the last year. JTRIF helped Junior College provide computer assited machining and robotics equipment used to train more than 1,000 people.

1983-84 SUMMARY

	Expenditures
Expand CAD Laboratory and staff training	$131,472
CAM Equipment including instructor training	33,798
TOTAL	$165,270

HENRY FORD COMMUNITY COLLEGE

Last year Henry Ford Community College received $152,240 under this program to apply toward the purchase and installation of a new instructional computer. At this time, the purchase is awaiting formal Board of Trustees approval at its September meeting. Installation is expected to be completed early in 1985.

The new system will provide:

1. An initial 69 interactive student terminals with the capacity of adding 120 more.
2. Greatly increased internal memory allowing for an expansion of the number of tasks it can handle.
3. Internal job control and accounting.
4. Multi-level security on access and files.
5. The addition of the PASCAL programming language as requested by those employing our graduates.
6. The addition of advanced data base capabilities for the advanced students.
7. Teleprocessing for off-campus computer instruction at sites such as union halls, business offices, industrial plants, etc.

In addition to improving the quality of instruction for over 2,000 currently enrolled Computer Information System students, the new system will permit the conduct of custom-designed training and retraining programs. Plans already have been formulated to conduct two JTPA Title III funded retraining programs for forty teachers permanently dislocated from their profession due to declining enrollments. Further, agreements have been consumated to conduct a series of computer literacy classes at the Ford UAW Local 600 union hall for approximately 100 active and laid-off Ford hourly workers.

Henry Ford Community College (continued)

The final combined investment for the pruchase of new computer hardware is:

Local Share	$115,488
State Share	152,240
Federal Share	262,272
Total	$530,000

HIGHLAND PARK COMMUNITY COLLEGE

The 1983-84 appropriation provided the College funds to upgrade word processing equipment (a 16-station Wang Office Information System was purchased) and related furniture. Classes are being offered as open entry/open exit. Work is under way to develop individualized modules to cover the theoretical portion of word processing.

Objectives completed in 1983-84 were the first stage of the College's goal to provide a revised high quality Secretarial Science program.

The second stage is proposed as part of the 1984-85 appropriation. The objective is to provide both an open entry/open exit typewriting laboratory and a transcription laboratory. The third phase of the Secretarial Science upgrade project, to be addressed in the future, will be the development of an Office Simulation Laboratory.

Secretarial Science Curriculum here at HPCC has been revised to include Word Processing. The new program title is Secretarial/Word Processing. This change was based on the results of surveys taken from Metropolitan Detroit area business and industry. Representatives stated that today's secretaries must possess both secretarial and word processing skills.

The second part of HPCC's 1984-85 appropriation is to strengthen the College's Respiratory Therapy Program.

In addition to performance records and support services mentioned earlier, the Respiratory Therapy department has had a record of 47+% completion and 100% placement over the past several years. Agencies (hospitals, etc.) affiliated with the program indicate an interest in hiring our graduates.

JACKSON COMMUNITY COLLEGE

Component A

Computer Aided Drafting $65,790.00

As specified in the grant request, $65,790 was applied to the purchase of a five (5) station computer-aided drafting/design system. Full incorporation of the system and its training programs was achieved during the latter part of Fall Semester.

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Jackson Community College (continued)

Enrollment through the Spring Semester revealed one-hundred and twelve (112) students training on the system utilizing the very latest techniques being employed by industry. In addition, we have provided demonstrations and open houses for five (5) business and industrial firms to acquaint them with CAD and our particular system.

This investment is providing immediate impact in meeting improved productivity and efficiency for local manufacturers.

Component B

Ongoing Equipment Grant $14,210.00

This component, while not providing immediate increases in enrollment has permitted the up-grading of training equipment to the standards of industry in automotive technology, electronics, and machine shop technology.

As technology improves and equipment changes, the necessity of providing new and current equipment is an ever critical aspect of occupational training.

This equipment has provided for improved quality and, in some instances, quantity, of our technical education at Jackson Community College. The net result is better and more current skills for our local work force.

Also, as part of Component B:
The information processing laboratory was upgraded by the purchase of five DECMATE II word processing stations with two letter-quality printers. This enabled us to serve 80 additional students per semester.

Word processing instruction was formalized into an associate degree and a one-year certificate program. The following word-processing related courses are now offered on a regular basis:

Word processing concepts
Word processing operations
Word processing management
Advance word processing operations
Beginning and advanced medical machine transcription
Machine transcription-general office
Office communications

Under development are word processing related courses in graphic communications, data communications, and electronic spreadsheet applications.

Winter, spring, and summer 1984 enrollments were 224 students.

Total dollar match requirement for this component was $36,130 of which $14,210 of JTRIF money was used.

KALAMAZOO VALLEY COMMUNITY COLLEGE

Kalamazoo Valley Community College received approval for $128,200 under the 1983-84 Appropriations Act to expand and develop its Computer Aided Drafting program to include Computer Aided Manufacturing. The Shared Resource Management Network approach originally specified as the most desirable in terms of cost by the advisory committee and faculty was revised after further review by both groups. In the interest of better access for the variety of student needs identified, faculty, advisory committee members and administrators agreed on the acquistion of 5 Hewlett Packard 9836 C and S computers, digitizing tablets, work stations, monitors, and appropriate room modifications to accommodate the much expanded lab. Major CAD/CAM software purchases to enhance the system included COM-CODE's 2D drafting package and D.P. Technology's CAM (lathe and mill options). (Additional equipment was approved for purchase in the college's new and replacement capital for 1984-85 academic year.)

Faculty training was accomplished on the CAM software for eight technical faculty who received a one-day mini course; three of those eight faculty continued with more intensive training using the same software. (all training occurred by vendor representatives at KVCC.)

Regular students as well as participants from business and industry have been well served. Approximately 100 students have enrolled in the Computer Assisted Drafting classes. The Computer Assisted Manufacturing classes will be offered for the first time during the 1984-85 academic year.

Representatives from twelve community colleges as well as Western Michigan University have visited KVCC's CAD/CAM facilities. In addition, the local Chapter of the Society of Manufacturing Engineers has met at the college for the purpose of touring the new laboratories.

Twenty-one companies have visited the lab facilities and discussed their potential with faculty. Local business and industry continue to send employees for training and upgrading to regularly scheduled classes.

Two well-received non-credit seminars were conducted by the faculty on the new equipment. Fifteen high school instructors participated in one, while fourteen individuals, including representatives of various companies, attended the second.

KELLOGG COMMUNITY COLLEGE

Kellogg Community College received an initial grant in the amount of $80,000 plus a grant in the amount of $52,760 based upon recommendations for our competitive proposal. The total award made available by the 1983-84 Job Training and Retraining Investment Fund was $132,760.

Purpose

1. To purchase three (3) instructional units of computer aided design equipment.

Amount of Public Act 129 Grant	$42,464
Amount of Federal Vocational Funds	14,053
Total Equipment Investment	$56,517

Kellogg Community College (continued)

2. To purchase one (1) word processing teaching station.

Amount of Public Act 129 Grant	$10,725

3. To purchase "high technology" instructional equipment for an automated manufacturing laboratory.

Amount of Public Act 129 Grant	$45,060

4. To purchase mini-computers for twenty (20) data processing teaching stations.

Amount of Public Act 129 Grant	$34,511
Federal Vocational Equipment Funds	14,000
Local Funds	8,006
Total Equipment Investment	$56,517

Results

The equipment has been purchased and installed. The computer aided design equipment has enabled Kellogg Community College to upgrade the drafting and design offerings commensurate with current technology to more effectively serve in-service and pre-service students. The word processing laboratory and the data processing laboratory have been expanded and as a result will accommodate additional students to satisfy enrollment demnads. The "high technology" equipment that has been added to the Automated Manufacturing laboratory has permitted the instructional content of the engineering technology programs to be up-graded.

KIRTLAND COMMUNITY COLLEGE

Purpose and Results

The college's purpose under the 1983-84 appropriations act was to evaluate the feasibiltiy of development of courses and programs in the Woodworking Science, Hospitality, and Recreational Services areas. Institutional and state program planning funds were leveraged in order to survey the feasibility of developing and implementing these programs. In that wood is a natural resource and prolific in the college district, there was the potential for an industry base to be built to diversity our regional economy. This study was to determine the college's ability to link natural resources with human resources. The other study (recreational services/hospitality) was developed to indicate the potential expansion of the tourist industry and how the college could provide training and employment for this economic sector.

Consultants were contracted to provide a study to this end. Both studys' outcomes did specify positive potential employment possibilities for persons trained in these disciplines. It is the intent of the college to further investigate the development of those programs. (Exhibit A - Executive Summary). Final report for review attached for committee review.

Kirtland Community College (continued)

Another component of the 1983-84 program was to acquire a P-TGA Turboprop engine for increasing the employment potential of Airframe/Powerplant employees/ students. Seventy (70) persons will be served annually by the investment. The instructor had the opportunity to attend PTGA in-service training to assist in development of the curriculum to include the newly acquired equipment. This investment will have an economic impact on the employees/students in the future as it enhances their employ-ability by being trained on this equipment.

Kirtland made a commitment to revise its electro-techology program to that of an electronic engineering technology program. This recommendation was made based upon the need to upgrade the program from one of radio/T.V. repair to that of the "computer age."

This direction was resultant from input from local industrialists/ employers that serve on the college advisory committee and own businesses.

These industries have requested that we provide in-service training for their staff in order to bring them up to date on current "state of the art" performance procedures.

One such employer assisted the college in obtaining a corporate foundation grant of $13,400. In order to survive in the market today, our industries must have access to training resources and equipment to remain competitive.

The equipment purchased to initiate the upgrading of the program will enable employees and students alike to be more marketable in their field and productive contributors to the local economy. More investment in equipment, however, will be required to bring the "microprocessor chip area." It is through this resiliency to change that the college can continue to be an economic resource and asset to its tax payers and industrial base providers.

LAKE MICHIGAN COLLEGE

Lake Michigan College received $80,000 to provide micro-computers for use in training and retraining efforts at its South Campus in Niles, Michigan and at the Main Campus in Benton Harbor, Michigan. $550,00 was spent to install twelve micro-computers, peripheral equipment and software at the South Campus. $25,000 was used to equip a computer lab at the Main Campus. The south Campus facility is now operational and students taking data processing classes there have the same educational opportunities as those taking classes on the Main Campus. Also, several short, skill intensive classes have been taught for the purpose of up-grading skills of workers needing training in computer language and word processing.

The lab at the Main Campus will be used to support special training needs of workers who can benefit from short, specialized training courses in computer operations, data entry skills, etc. In addition, special staff development programs are planned for the college faculty to aid them in utilizing CAI software. The lab is located adjacent to the math lab and remedial instruction is being developed for students not completing the individualized instruction units currently in use in the math lab.

Lake Michigan College (continued)

This will be especially beneficial to students in the Industrial Technologies programs because of the heavy emphasis on math skills in those programs. Many of our students come to us with only one year of mathematics from their high school program and that experience was generally early in their high school program and not related to higher mathematic skills needed to be successful in high technology occupations.

The college has expended $4,100 for maintenance contracts for the equipment, $5,701 for setting up the laboratories; including additional furniture, peripheral equipment, electrical hook-up and some additional software.

LANSING COMMUNITY COLLEGE

Part I, CAD/CAM Service for Selected Industrial Firms

Part I of the 1983-84 Job Training and Retraining Investment Fund had its primary focus the development and implementation of an industrial training support system. This system is designed to enable industrial firms to quickly adapt new technological changes with the confidence that trained personnel would be readily available and/or training appropriate for the firm's needs. The planning and implementation process has been accomplished through employment of a Technical Services Coordinator who has been in close contact with six area firms and two firms outside the immediate area. Training requirements have been identified for a full array of computer graphics coursework, staff training on the new curriculum materials has been accomplished, and training workshops have been conducted for eight companies in over 20 sessions.

Objectives of the project to install and implement staff and industry training on finite element modeling and analysis, have been delayed due to constraints brought on by the high demand for basic CAD training and the installation of a new central computing system. Additionally, since this project began, technological changes have been made and must be researched to be sure the planned approach is still valid and viable with regard to industry directions.

Part II, Educational Program Interface (EPI) With Business and Industrial Firms and Microcomputer Software Application

The primary objectives of "Part II - Educational Program Interface (EPI) with Business and Industrial Firms and Microcomputer Software Application" were:

- to design, develop and pilot-test an instructional program on microcomputer software applications for area businesses, industries and governmental organizations.
- To evaluate and conduct a second program based on revisions of the first pilot program.
- to purchase hardware and software necessary for the design development and delivery of the instructional program.

The pilot program titled "Microcomputer Software Applications" was conducted on July 19th and 20th. The participants represented various large and small businesses, industries, and governmental agencies in the Lansing area. They learned:

Lansing Community College (continued)

- the capabilities of different classes of microcomputer software
- how to select appropriate software for business needs
- how to select appropriate hardware

The College is now in the process of revising the program and planning for the second program on September 20, 21st. Program participants will be representing various large and small businesses, industries and governmental organizations.

The Management Development Center has plans to replicate this program and use it for on-going training for area businesses, industry, and governmental organizations. A proposal has been made to a local bank to customize microcomputer software.

Industrial Development Institute

Drawing support from the Job Training and Retraining Investment Fund of 1982 - Section 16, Act 263, Lansing Community College (LCC) in conjunction with Michigan State University (MSU) formed the Industrial Development Institute (IDI) which became functional October 1, 1983. Modeled on the very successful Cooperative Extension Service (CES), IDI serves as an information/technology transfer agency from academia to small and medium business/industry/commerce in the region.

With such a wide mandate, limited resources and tight time schedule, it was vital to further refine the problem definition. After an introductory period of becoming acquainted, a series of meetings/interviews were held with a cross section of industrial leaders. The outcome has been reported in the regular quarterly submission and again in a suggested agenda for continuance date August 10, 1984. Briefly stated requirement exists within the small/medium group for strategic planning, financial assistance, comprehensive information network (Michigan Technology Transfer Network) and a catchall general category.

To date some two dozen firms employing 1000-1500 have been touched by the IDI. Gaining their confidence and lowering the barriers of skepticism represents the primary hurdle. The relationship is strengthened to the extent that we respond in a professional manner and on a timely basis. Repeated contact over a longer time frame should entrench the IDI concept as a solid member of the service community.

Some comment on the process may be appropriate. In general there is not substitute for networking to identify clients. Media and other promotional attempts tend to attract those who need help but are probably helpless. We require a sharper focus and stronger data base to apply successful marketing techniques and direct selling is not very cost effective.

Both one on one and team contact approaches have proven satisfactory. Particularly pleasing is the tremendous cooperation and support offered by faculty and staff at both instituttions and from other service organizations, regional and statewide. Referral to local, private entities is a not uncommon feature in the action recommendations made.

Lansing Community College (continued)

Emerging Technologies Consortium

The Emerging Technologies Consortium, composed of four community colleges, Lansing, Macomb, Oakland and Wayne was awarded a grant of $162,600 from the Job Training and Retraining Investment Fund under Section 15 of Public Act 129 of 1983. The unique purpose of the consortium was to address the problems of healthcare, business and industry related to identified emerging technologies and encourage the four community colleges to act cooperatively in development efforts information sharing and a common course of action.

The consortium staff, composed of three professionals and one support person was hired and housed at Macomb Community College. A Steering Committee was established with representation from each president. Operational responsibility for the consortium staff was assigned to Macomb. A comprehensive and advisory committee (15) representing the emerging technologies was appointed to serve the consortium staff in a variety of ways.

The emerging technologies were refined and incorporated into the employer study. They are computer-aided design, computer-assisted/ integrated manufacturing, telecommunications, material management, electronic office, quality control and laser. These seven educational program-related technologies were then explored in the following industrial sectors: Manufacturing, Food Processing, Service (Health, Telecommunications, Retail), and Producers of High Technology Equipment.

Over 100 in-depth interviews were conducted by the consortium staff of business firms in the four geographic areas represented by the community colleges. The interviews concentrated on the state of use of technology, training/retraining needed, implications for curriculum, placement of college faculty in an on-the-job setting and cooperative education opportunities for the students at the four community colleges.

A final report of the data collected with an analysis and recommendation for action will be delivered to the four college presidents by September 30, 1984.

The final report will be instrumental in alerting professional staff at the four community colleges to the needs and perceptions of business and industry in the emerging technologies. In addition, the professional staff will be able to capitalize on the network of employers and their expressed interest in establishing cooperative education opportunities for tudents, for faculty development opportunities and for faculty training in an on- the-job setting.

MACOMB COMMUNITY COLLEGE

1) The entrepreneurial and small business development phase of last year's grant from JTRIF had ramifications in the form of intensified collaboration with the Macomb County Economic Revitalization Committee (ERC), Chambers of Commerce, and other economic development groups in bringing about a designation of the ERC by Michigan Department of Commerce as the State's first Community Growth Alliance (CGA). Following the designation, the CGA was authorized by Governor James Blanchard, April 30, 1984, to set up a Small Business Assistance Center (SBAC). The College contribution of $25,000 in

Macomb Community College (continued)

cash and in-kind services helped make possible the activities of assisting over 300 small businesses through seminars, financial packaging, and managerial and technical assistance in the areas of business planning, export, marketing, federal and state contract procurement and sales.

JTRIF $12,000

2) The equipment request phase of last year's grant allowed the College to expand its capacity to teach Robotics/Flexible Automation related courses and to continue to provide hands-on training and retraining in state-of-the-art equipment.

Funds in the amount of $68,000 were combined with $64,449 in VEA funds, and $7,659 from College sources to purchase $140,108 of equipment in support of the Robotics/Flexible Automation Program.

This equipment provides students with a learning environment that simulates a real Robotics/Flexible Automation setting in industry. The number of work stations in this program were increased significantly resulting in an apprximate 30% increase in the number of students served.

JTRIF $68,000

3) Emerging Technology Grant reported under separate cover.

JTRIF $162,600

MID MICHIGAN COMMUNITY COLLEGE

Commencing with the Fall Semester 1984, Mid Michigan Community College has committed over $87,000 of local dollars to equip new laboratories to service students, business, and industry. Funds received from JTRIF in 1983-1984 (RUA '84 Disk - including cabinet, controller and supporting interface hardware) enabled the College to establish a data processing laboratory in Mt. Pleasant and will serve over 200 students its first semester of operation. The laboratory, outfitted with $68,000 worth of new equipment, includes 16 student work stations with Digital Rainbow 100B Microcomputers. Each system is connected via telephone link to the main computer on Campus and can be utilized as "stand-alone" microprocessors and as word processors.

NICAM III software has been purchased by the College at the price of $17,000 to provide the maximum number of machine tool programming languages at both the Mt. Pleasant Center and the main Campus. Students, business, and industry will have access to the latest in both hardware and software as identified by our occupational advisory committees.

With assistance from this years JTRIF, MMCC anticipates the up-grading of the Digital Rainbow 100B Microcomputers to 256K which will allow students to have access to computer aided manufacturing (CAM) and computer aided design (CAD).

This commitment to provide quality training programs will assist area employers in providing training in data processing, computer science, machine tool (NC/CNC/CAM), secretarial-word processing, and computer aided drafting. By Fall of 1985, the College will make available an industry acceptable CAD/CAM program for trainees.

Mid Michigan Community College (continued)

Local business and Mid Michigan Community College are in the final stages of implementing the Contracting with Business and Industry Program established with funds from the 1983-84 JTRIF Area businesses located in Beaverton, Clare, Coleman, Farwell, Gladwin, Harrison, and Mt. Pleasant are excited and encouraging this internship program. Over 800 businesses have been contacted and of those responding not one had indicated a lack of interest in the training concept. At the present time, MMCC has more training sites than qualified students. Without exception, businesses are enthusiastic and very receptive to the Program and its intended purpose. The business people are finding the program to be a new way to fill a gap in our community work force without incurring a great deal of time and expense.

MMCC anticipates a maximum of forty training sites within the 1984-85 academic year, and with assistance from the advisory committee members, this number should grow as the College continues to support and meet the needs of those it serves.

The Automotive Technology Program at MMCC has over 80 full-time men and women in training in all areas within the profession. Job opportunities have been increasing yearly and the majority of students in the program have found employment in the College service areas at graduation or shortly thereafter.

Again, assistance from 1983-84 JTRIF has enabled the Automotive Technology Program to acquire the most modern training equipment available within the industry. This action has increased the College's ability for manufacturers (Hunter Engineering, General Motors, Chrysler Corporation, etc.) to provide training activities for their automotive service personnel and independents in the local area. Finally, it has allowed the College to invite, free of charge, all high school automotive instructors to participate in training activities to update their skills. This cooperative effort has benefited both the private and public sectors.

MONROE COUNTY COMMUNITY COLLEGE

The 1983-84 Economic Development Grant for Monroe County Community College focused on three areas:

(A) Development of a cooperative education program to give students more opportunity for on-the-job learning experiences using state-of-the-art equipment.

(B) Addition of Computer Aided Drafting/Design (CADD) equipment and software in response to industry and advisory committee requests to keep pace with the changes in this area of technology.

(C) Continuation funding to continue our cooperative efforts with the Monroe County Industrial Development Corporation.

Monroe County Community College (continued)

Project A
The cooperative education program will begin in the fall, 1984. Two faculty have been provided with release time to develop the structure of the program. The emphasis initially will be in the business and technical areas with additional programming areas being considered as the program develops.

The co-op faculty have most of the organizational structure in place and will be devoting the majority of their efforts this fall in identifying job sites. There has been an effort to work closely with the J.T.P.A. structure in the development of the program.

Project B
The computer aided drafting/design equipment has been purchased and is in place. Extensive in-service training was scheudled during the summer, 1984. In addition to the college faculty, high school drafting instructors were involved with the training program. Two introductory classes in CADD are being offered this fall. At this point in time both classes have been subscribed through advance registration.

The plans for the future are to offer advanced courses and provide special CADD seminars for individuals who are in the work force and are faced with this new technology.

Project C
During the past two years the college worked cooperatively with the Monroe County Industrial Development Corporation (MCIDC) to market the services and training available to business and industry within Monroe County. The college has also coordinated development activities with the Monroe County Chamber of Commerce.

MONTCALM COMMUNITY COLLEGE

Last year Montcalm Community College requested funds to continue the activities of the Center for Technical Information and Training. More specifically, we requested funding to:

1) conduct a needs assessment for small business/entrepreneural training and agricultural technology training;

2) generate a data base on which to build training programs for Small Business Management, Computer-Aided Drafting (CAD), and Agricultural Technology;

3) present seminars and workshops in the areas outlined above as well as conduct information sessions in local high schools;

4) conduct training sessions in Small Business and Agricultural Technology, as well as expand offerings in Electricity/Electronics and Hydraulics/Pneumatics.

Montcalm Community College (continued)

Results
All the goals set by the College upon receipt of the funding have been reached except for several related to Agricultural Technology. The Needs Assessment study for Agricultural Technology as well as the creation of a data base for that program are still in progress.

Seminars, workshops, and training sessions were all brought forth successfully. Nine seminars relating to small business were conducted with 225 in attendance. Eighteen high school classes were visited with 216 students in attendance. A special careers film was shown emphasizing the need for training. Finally, over 30 courses have been offered over the past year in Small Business Management, Computer-Aided Drafting, Electronics, Statistical Process Control, and CNC Machining. The number of unduplicated attendees is estimated at 300.

The Competitive Grant
Last year's competitive proposal requested funds for purchasing equipment and software for conducting training in small business selection/use of computers. All of the equipment and software has arrived. Six workshops have been conducted (175 attendees), and more are scheduled for the fall semester 1984.

Budget Expenditures(Projected through 9/30/84)

Industrial Technology Equipment	$ 67,900
Instructional Support (service, supplies, and materials)	18,000
Computers and Software for Small Business Training	33,000
	118,900
Less College Contribution (non-salary expenses)	27,180
TOTAL JTRIF GRANT - 1983-84	$ 91,720

Additional Funding Sources

Equipment Donations from Individuals and Industry	$ 8,765
Special Funds Generated (JTPA, MDE)	6,000
	$ 17,265

MUSKEGON COMMUNITY COLLEGE

Muskegon Community College requested financial support during the 1983-1984 fiscal year to support two specific projects:

I. Purchase and installation of Computer Aided Design equipment to bring state-of-the-art technology to MCC students and employers of Muskegon/Ottawa and Oceana Counties. Results: Equipment, software and training materials have been purchased and made ready for Fall '84 implementation. Classes are scheduled to serve 20 students apiece with one being reserved specifically for employer referral, the other for open registration. Eleven stations, software and instructor training have been completed at a cost slightly exceeding the JTRIF allocation. Matching federal dollars will be used to offset the additional cost for equipment.

II. Purchase and installation of 24 Sperry Univac Personal Computers to meet the demand of area residents for computer knowledge. The two-fold increase in the number of students seeking instruction and training in computer related skills forced the college to double its instructional staff and obtain more equipment.

The equipment has been purchased, training workshops for faculty and staff conducted, and students served troughout the calendar year. A waiting list of students seeking entry to the program has also been eliminated. Without the assistance of JTRIF support, the college simply could not have responded as quickly and effectively.

NORTH CENTRAL MICHIGAN COLLEGE

In fiscal 1983-84 North Central Michigan College received a grant of $80,000 to purchase a medium-sized mainframe computer to enhance its ability to provide training and retraining for area employers. This mainframe computer was to be linked to micro-computers received by the college with funds from the first JTRIF grant.

The college has purchased and has in place an IBM Model 36 mainframe computer. In addition to the computer the college has purchased an IBM printer and software related to projected training and retraining needs of area business and industry. Necessary linkages are in place to allow access to the main frame computer from micro computers in the computer laboratory funded by JTRIF in round one.

As a direct result of funding under the first two rounds of the JTRIF, NCMC has trained or retrained in excess of 400 persons. In addition the College has increased its business and industry related course offerings from 2 to 18.

The college is currently retraining 185 employees of Proctor & Gamble Paper Products in computer usage.

NORTHWESTERN MICHIGAN COLLEGE

Funding assistance to Northwestern Michigan College through the Community College JTRIF has enabled us to be proactive in economic development by providing the funds to offer education and training that have had a positive economic impact in our area and state. No less than 1,848 people have been directly served as a result of the JTRIF in our area during the past two years.

Northwestern Michigan College received an $80,000 JTRIF grant in 1983-84 to purchase computer aided design (CAD) equipment for an eight-station lab.

Anticipating the computer revolution in the manufacturing industry, NMC purchased the equipment to provide training and retraining in the areas of design engineering technology and digital electronics.

Three academic courses have been offered to date using the CAD equipment. Forty participants, including representatives from local industry, former students returning to upgrade their skills and current students, have enrolled. This year, two courses per term are scheduled (day and evening) to continue to serve the aforementioned population.

Further use of the CAD equipment is being made in an open lab environment for advanced drafting classes including C.N.C. Programming, time Cost Estimating, Jig Design and Detrailing, Die Design and Detailing and Electrical Drafting.

Plans are underway to offer special seminars to the manufacturing industry and local architects through NMC's Center for Business and Industry with an anticipated audience of 40-50 in 1984-85.

With the CAD equipment, NMC can provide a hands-on understanding of computer applications to present and future manufacturing industry personnel.

OAKLAND COMMUNITY COLLEGE

Summary of High Technological Development Project

The purpose of the High Technical Development Project is to provide supportive tutorial services for those unemployed or underemployed workers who wish to retrain in the high technology area, but are lacking the basic skills to succeed academically. The areas for which students have been preparing include microprocessing, computer programming, computer aided design (CAD), electronics, robotics, and alternate energy.

During the six month period (which did not include one complete full-length semester), 84 students have experienced noteable success as a result of participation in the program. Some of the tutorial service provided is lengthy and involved, particularly if the student requires some very basic skills. Other students require only instruction in a few troublesome areas which are preventing the successful completion of a course. All instruction in the basic skills is related to the technical areas.

Statistics on program participants revealed a mean age of thirty-one. Fifty-seven percent of the participants are women. Eleven percent speak English as a second language, and twelve percent are minority group members. Of the 84

Oakland Community College (continued)

students who participated in the program, 36 are currently unemployed; most others are employed as unskilled labor. Seventy-eight of the participants are retraining for positions in technology, and one student is gainfully and commensurately employed but seeking to maintain current skills.

The recruitment of students is an ongoing concern. Promotional information addressing this program has been distributed at all campuses of Oakland University, Wayne State University, and University of Detroit. Efforts have been coordinated with the GM/UAW Tuition Assistance Plan so that students lacking in the skills needed to take advantage of this program will be prepared in the basic skills and obtain a familiarity with the technical programs of his/her choice. After participation in the High Technical Development Project, students will be able to take advantage of the tuition grant and achieve academic success in college courses.

Retention of students required the implementation of pertinent programs and the appointment of select personnel. A counselor is on staff to provide academic counseling for all students participating in the High Technical Development Project. Workshops for students are held by the counselor and grant staff in an effort to provide support groups for those participants who may be apprehensive regarding their abilities and intimidated by the academic demands of courses. Potential tutors were interviewed and screened to provide the best available assistance in each of the specific areas.

Special consideration and attention is paid to the learning disabled and those students who are physically handicapped. All tutoring for learning disabled students is closely monitored by the project coordinator whose expertise is in the area of remedial reading, and who has considerable experience with the learning disabled. The tutorial staff also includes a physically handicapped member and a disabled Vietnam veteran. Provisions have also been made for students who speak English as a second language.

Summary of Alternate Energy Project

The 1983-84 appropriations for the Alternate Energy Technology program has allowed OCC to meet our grant goals of: expansion of the energy technology lab for increased usage, outreach to the community with special targeting of the unemployed, and development of a mutliple option and short course sequence training program. As outlined in the grant, the funds have been used for the following projects: groundwater heat pump, wind and hydro power trainers, passive solar and active solar test stands and monitoring modules, rock bed/phase change/liquid storage modules, audiovisual aids, photovoltaics trainer, and computer hardware and software. Manufactureres such as Pella windows have donated over $8,000 of equipment so grant funds could go farther than anticipated.

All specified activities in the grant have been implemented, including program course development and revision, and increased outreach. This program provides training for the consumer, the unemployed, and those already working in the construction trades or climate control industry. In the winter of 1984, a special class for low income unemployed was conducted in solar energy and energy conservation technology for job training. OCC will be able to do more of this specialized outreach to the unemployed now that our facilities are updated.

Oakland Community College (continued)

OCC has been using the local media to publicize the energy technology lab as an energy demonstration center for the whole community. For example, the Detroit News, The Free Press, radio stations, and one of the major television stations have all provided coverage. The Detroit Science Center will be displaying the brochures. This has increased our enrollment as well as provided a service to the general community.

This past year the Alternate Energy Technology Program has seen a sharp increase in job offers from the energy industry for OCC students. For example, some students who have been retrained with only the three or four course series have gone on to earn income at the rate of $20,000 - 30,000 per year within the first year.

The timing of this grant has been excellent in allowing OCC to continue to provide high quality instruction. The grant has allowed OCC to meet our goals of retraining people for jobs that will contribute positively to our community by reducing Michigan's energy dollar deficit.

ST. CLAIR COUNTY COMMUNITY COLLEGE

Under the Community College Job Training & Retraining Funds of 198[illegible]-84, St. Clair County Community College received $102,575 for six activities. Four of those activities involved procurement of much needed equipment for vocational programs: Robotics Technology; Medical Office Assistant; Drafting and Design Technology, and Manufacturing Technology. Two other activities focused on vocational testing and counseling through the acquisiion of computer assisted techniques and expansion of a reading laboratory and development skills through the acquisition of state-of-the-art techniques for those programs.

$23,000 was allocated to the purchase of state-of-the-art equipment for the Robotics Program. This program was initiated in 1982, however, because of the lack of state-of-the-art technology the College was unable to move into the advanced training portion of the program. With the use of JTRIF monies and federal portion of the program. With the use of JTRIF monies and federal match monies the College has purchased and currently has in use four armatrol robots and six armdraulic robots and is now offering the advanced portions of the Robotics Training Program.

$7,000 was allocated from JTRIF funds to match $7,000 in federal vocational education monies for the purchase of a MATC-CAD system for teaching computer assisted design concepts in the Drafting and Design Program of the College. This equipment has enabled us to stay abreast of current techniques in the field of drafting and design. This equipment has been purchased and is currently in use. Two local manufacturing firms that have recently installed similar equipment are using College facilities to train their own personnel in its use.

$7,000 of JTRIF funds were awarded to the College for the purchase of computer assisted manufacturing equipment. This $7,000 was matched with $7,000 of federal vocational education funds and provided the necessary monies for the college to purchase computerized numerical control equipment. This equipment

St. Clair County Community College (continued)

has been purchased and is in use in the Manufacturing Technology Program. As a result of the availability of this equipment, two programs were run for local companies during the summer to train their employees in the application of computer assisted manufacturing techniques.

$23,000 of JTRIF funds were awarded to the College for the purpose of acquiring equipment that would permit the College to upgrade the Medical Office Secretarial Program to a Medical Assistant Program. The upgrading of this program was based on the advice of the Medical Secretarial Advisory Committee composed of professionals from local hospitals and physicians offices. In addition to the $23,000 awarded through the JTRIF, $22,000 of federal vocational education monies was awarded to purchase the equipment necessary for this program. This program began its initial year of operation in the Fall of 1984. For the current fall semester, there are 61 students enrolled in the program.

$22,000 of JTRIF monies were awarded for the purpose of permitting the College to purchase and install hardware and software to be used in vocational testing and counseling. In addition to the $22,000 awarded through JTRIF funds, the College expended some $10,000 of its own funds for the purpose of purchasing this hardware and software, and approximately $3,00 for the purpose of training existing staff in the use of this equipment and software. This automated equipment provides the College with the capability of providing vocational testing for students and, in addition, permits each student on an individual basis to go through a computer aided development program for self-direction in career orientation. Equipment and software has been purchased and is currently in use in the Counseling Center as well as in the Learning Resources Center.

$20,575 was awarded in JTRIF monies for the purpose of expanding the Colleges Reading Laboratory and Developmental Skills Program. In addition, $,5000 in local monies was expended for the purchase of three microcomputers to support this program. As a result of expanding the reading laboratory and developmental skills program, the college has approximately 500 students enrolled in this program during the fall semester, with the expectation that that number will increase during the winter semester. The new and additional laboratory equipment that was purchased under this program is currently in use and the additional software for use with the computer equipment has been purchased and is currently available for students use on an individualized basis on the five microcomputers that were purchased to support this program. These software packages included practice programs in reading, spelling, vocabulary and associated skill-building tasks, permitting students to progress at their own rate of learning once they have received basic instruction.

SCHOOLCRAFT COLLEGE

Last year, for the first time, Schoolcraft College sought funding from the Job Training and Retraining Fund to establish a Business and Industry High Technology Brokerage. In cooperation with local employers, the College conducted an assessment of employer technical needs and employee skill inventories. Training programs were subsequently defined and high technology instruction was provided.

Schoolcraft College (continued)

The Brokerage focused on the needs of employees who may become unemployed due to skill obsolescence, and those who may not not be afforded career mobility because of a lack of technical skills. The effort has been to address unemployment in a proactive fashion; to keep the employed from ever entering the ranks of the unemployed. The intent of the Brokerage is to fill the gap between programs such as Quick-Start (targeted for new or expanding enterprises) and the Job Training Partnership Act, which was designed for the hardcore unemployed.

The Brokerage has been extremely successful in fulfilling its stated purpose. It has also had an unexpected and equally positive effect in other areas.

Last year, approximately 1,000 people received skill upgrading through the Brokerage. Due to a shortage of computer facilities, some 400 unfulfilled requests remain from the 1983-1984 academic year. The Brokerage has scheduled commitments through January, 1985. During this past academic year over seventy (70) special courses were created for both large and small companies in our service area.

The Brokerage has also attracted private corporate contributions to the College. As a direct result of JTRIF funding of capital equipment and utilization of other funding sources, the College received its first significant piece of CAD equipment from IBM. For the first time, we have received major cash grants from the Ford Motor Company and General Motors Corporation. The College was also selected to participate in the first cooperative training venture ever permitted at the Ford Robotics and Automation Applications Consulting Center (RAACC). Our robotics faculty were trained in the most comprehensive facility of its kind. Faculty skill upgrading opportunities were also made available by two divisions of General Motors Corporation. The College has been asked to submit proposals to two corporations which, if successful, could bring another one half million dollars in high technology software to Schoolcraft. It is our belief that little or none of this "spin-off" effect would have occurred had it not been for the initial JTRIF funding.

SOUTHWESTERN MICHIGAN COLLEGE

Southwestern Michigan College's proposal to invest in a Microcomputer Lab and the expansion of three high demand occupational programs was approved and largely funded in 1983-84. By utilizing the $80,000 initial grant and a $52,000 competitive grant; adding to that a grant of $26,000 from the Heath Corporation of Benton Harbor that was secured because of the availability of funds under the JTRIF plus $9,541 in other college funds, both the initial and competitive grant proposals have been completed.

Initial Grant Proposal

The initial grant proposal was for $79,585 (including $6,600 of college funds) to create a Microcomputer Laboratory on campus to train small business employees and other business students in the use of business microcomputers. Utilizing $80,000 from the initial grant proposal, adding to it a $26,000 grant from the Heath Corporation, and $4,400 in college funds, SMC opened

Southwestern Michigan College (continued)

microcomputer laboratory space with 24 microcomputers, six line printers, and two plotters in renovated space for Summer Session, 1984. During this session alone, 55 students were given course work in subjects ranging from BASIC through Word Processing who could not have been served previously. Almost all of these students were employed in, or were training for, occupations where the use of the microcomputer is required. Early indications are that 1984-85 enrollments in job-related microcomputer courses will more than double compared with 1983-84, as a result of the added microcomputers.

Competitive Grant Proposal

SMC was faced with greatly expanded student demand in three occupational programs for 1983-84. All of these programs had excellent placement in the college's service area, and the college was not able, utilizing regular resources, to staff and supply the classes. The college requested $57,200 under the Competitive Grant to add an instructor in automotive technology, an instructor in data processing, and a Computer Assisted Machinine work station. Approal was granted for $52,000. The college added $5,146 from college funds to complete the project. As a result, the college was ble to offer complete programming in automotive technology and in computer programming to approximately 50 students, and was able to increase the number of student (both initial training and re-training) to become proficient in computer assisted machining from 15 to 20. The additional instructional staff approved under the Competitive Grant have now become regularly funded employees, with tuition, local taxes and the state membership subsidy supporting the positions.

Summary

SMC utilized the Job Training and Re-training investment fund of 1983-84 to add much needed personnel trained in small business computer work to the area work force, to upgrade the skulls of graduates of most of the occupational programs ofthe college through the use of the microcomputer; has expanded the number of trained entry level programmers and automotive technicians, and has trained and re-trained computer assisted machine tool operators as needed in the area. The JTRIF for 1983-84 will result in a positive long-term investment in training Michigan's manpower needs.

Initial and Competitive Grant Proposal Summary

Purpose

Southwestern Michigan College's 1984-85 JTRIF proposal is divided, with a basic or initial grant request and a competitive request. The projects are listed in the college's priority order, but total funding will permit a comprehensive plan to be introduced that will dramatically enhance SMC's ability to provide needed job training and re-training.

I. Initial grant - $80,000 to be matched by $101,658

The initial grant in the amount of $80,000, together with $5,600 in local funds and $96,058 in federal vocational education funds will allow the college to purchase $181,658 of new equipment. These funds will be used totally to purchase equipment for an Electronics Laboratory ($127,173) and to operate the Computer Assisted Drafting and Design (CADD) laboratory ($54,485).

Southwestern Michigan College (continued)

In an area of growing electronics manufacturers, service centers, and small design and prototype shops, the college must have the equipment to provide initial training and extensive re-training. The small employers who make up most of the employment base of the SMC service area cannot provide training for their employees on "state-of-the-art" equipment, but must rely on SMC to provide this service so they can remain in business.

II. Competitive grant - $185,000 to be matched by $95,508

As a part of the start-up costs in the entire electronics/computer area, the college is requesting $185,000, to be matched with $95,508 in Private Industry Council and Federal vocational education equipment monies.

Combined with a need for new electronic equipment, there will also be a need for additional faculty. Student numbers approximately tripling the projection on the Needs Study (See Appendix A) are seeking entrance to the program for 1984-85. This will make necessary the employment of an unbudgeted full-time faculty person for Spring Semester, 1985, and the upgrading of the skills of current faculty. Fourteen thousand dollars is requested for salary and fringes for this one semester full-time appointment, and $6,000 for faculty upgrading costs. It is expected that tuition, local taxes, and the state membership subsidy will allow the college to budget for this position in 1985-86.

As a result of, but somewhat separate from, the basic electronics training package is the upgrading of Avionics (Aviation Electronics) as a part of the college's highly successful Aviation Technology program. While the electronics program will provide the basics, additional specialized equipment will be required for avionics. In order to accomplish the first phase of upgrading, $20,000 is being requested for avionics equipment.

Even with the added laboratory equipment, the college cannot efficiently and adequately meet the specialized training needs of area electronics (and other) employers. The college is also requesting $30,000 (to be matched by $90,000 from PIC) to train up to 80 students per year on actual job sites under a program entitled, "Contracting With Business and Industry." The student is trained on the job site and receives supportive courses from the college. The student receives no pay, but the private employer/trainer is paid a modest stipend. Highly specialized training will result.

Needed for all occupational programs, but particularly in the emerging electronics/computer/CADD/avaionics fields in an area with a myriad of small employers (See Appendix E) is a job placement office for occupational students and graduates. There is evidence of unfilled jobs in the college's service area, while trained potential applicants cannot find them.

An aggressive job placement office that will match graduates and job opportunities would greatly assist the area's small industries secure personnel and add to their competitive edge, permitting them to grow and prosper. The college proposes an initial grant/investment of $90,000 for 1984-85.

Southwestern Michigan College (continued)

Finally, to complete this comprehensive plan, the college needs to increase computer terminals for student use, refurbish and renovate CADD laboratory space, and add the capability of remote telecommunications training for student use. (See Appendix B). The College requests $25,000, to be matched by $5,508 in Federal vocational equipment funds.

Anticipated Results - People to be Served

The approval of both parts I and II initial and competitive) of this grant will result in:

1. Initial training in electronics (maintenance, production or repair) for 60 persons each year.
2. Training in avionics for up to 22 persons each year.
3. Training in job specific programs not offered by the college in electronics and other fields of up to 80 students per year.
4. Training and re-training in short coursework of up to 100 persons per semester in business microcomputes and telecommunications skills.
5. Providing programmatic and short course training in CADD for the employees of small tool and design shops in the college's service area.
6. Finally, the investment of $265,000 from JTRIF will result in a minimum of $462,166 being made available to training personnel to upgrade the work force and fill skilled job vacancies in the college's service area.

WASHTENAW COMMUNITY COLLEGE

Approved Grant

1.	NUMERICAL CONTROL TECHNICIAN TRAINING Lease of Computer	$ 34,000.00
2.	COMPUTER AIDED DRAFTING TECHNICIAN TRAINING Purchase of CAD Stations	$ 34,400.00
3.	HOSPITAL PHARMACH TECHNICIAN TRAINING Laboratory Equipment	$ 35,000.00
4.	WORD PROCESSING TECHNICIAN TRAINING Word Processing Stations	$ 15,000.00
5.	STAFFING - SUPERVISION OF CENTRALIZED COOPERATIVE Education and Placement Office	$ 33,890.00
	TOTAL:	$152,290.00

Results of Expenditures

1. NUMERICAL CONTROL TECHNICIAN TRAINING

   A. Retraining and upgrading coursework was provided for 70 Ford employees (on-site at Ford Rawsonville) with assistance of Investment Fund

   B. 16 laid-off Ford-UAW persons were returned to the workforce.

   C. 275 students benefitted from training on NC Programming and Machine Operation.

Washtenaw Community College (continued)

2. COMPUTER-AIDED DRAFTING TECHNICIAN TRAINING

   A. 105 students were trained on the CAD stations
      1) 53 students were currently employed and upgraded
      2) 28 were unemployed and seeking new skills
      3) 7 were seeking exposure to institute CAD in their companies
      4) 17 were in related fields like Computer-Aided Manufacturing

   B. CAD-CAM is now possible at Washtenaw Community College

3. HOSPITAL PHARMACY TECHNICIAN TRAINING

   A. Investment fund support provided necessary funds to equip the lab and start the program.

   B. In the first year of the program sixty-five students have begun their coursework (40 new and 25 upgrading).

   C. Industry and advisory committee relations are very positive.

4. WORD PROCESSING TECHNICIAN TRAINING

   A. Investment fund grant was matched by the Digital Equipment Corporation dollar for dollar. This allowed the purchase of four stations.

   B. 64 additional students were trained or retrained because of the investment fund grant.

   C. Placement exceeded 85%.

5. COOPERATIVE EDUCATION AND PLACEMENT

   A. Student database established

   B. Expanded co-op placement opportunities 50% (221 to 340)

   C. Have added co-op stations in Robotics, Digital Equipment Repair, Word Processing and Computer-Aided Drafting.

   D. Placement (75-100) opportunities have expanded due to centralization of this function and the office's outreach efforts.

WAYNE COUNTY COMMUNITY COLLEGE

Freshman Learning Institute

The Freshman Learning Institute was designed to improve retention and raise the reading level of students enrolled in the program. The program was unable to achieve the state increases in reading levels at all phases as projected in the original proposal; however, the following goals were met:

Wayne County Community College (continued)

1. 67% of the 153 students enrolled in this program increased vocabulary scores by one or more grade levels.

2. 74% of the students increased reading comprehension scores by one or more grade levels.

3. 76% of the students remained in college after the first semester.

4. The attrition rate for students enrolled in this program were substantially lower than the attrition rate for general studies students at the college. There was a 76% retention rate for students enrolled in the program as compared to a 56% retention rate in general studies students.

5. Several in-service training programs were conducted for all staff members. The staff members reported a positive attitude toward the in-service training which occured. The most positive was a two day retreat.

The chief weakness of the program was a lack of detailed records on the assessment scores of students. For this reason we were unable to report more data for students in this program or compare this population to students enrolled in the general studies classes.

WEST SHORE COMMUNITY COLLEGE

In 1983-84 three areas of highest priority were identified by the college based on needs assessments from business, industry, students and educators. With the receipt of the $80,000 from the JTRIF, the college was able to impact and enhance economic development and the educational delivery system by:

1. Purchasing additional microprocessor hardware and software for the Learning Resources, Word Processing and Data Processing Centers.

2. Updated and modified the curriculum and equipment in Electronics Technology, Welding Technology and Diesel and Heavy Equipment Repair.

3. The development of a coordinated secondary and post-secondary Master Plan for Occupational Education for the college district.

The specific outcomes resulting from the activities generated by the Act from these projects are listed below:

1. Increased enrollment in 1983-84 in the marketable skill areas of electronics (48%) and data processing and word processing (293%).

2. Matching grant monies totaling $25,000 were added to the original $80,000 providing an impact of $105,000 to the total project.

3. Introduction of a new state-of-the-art technology--robotics--to the college's curriculum through the purchase of a robotics arm and electro-hydraulic training center.

West Shore Community College (continued)

4. Enhancement of the Learning Resources Center and retention of students through the purchase of additional microprocessor software. During this first year of operation, 3,082 individual students visited and used the Center. Testimonials for the Center by the students and college staff are excellent.

5. Updating of curriculum and equipment in the area of welding, specifically, metallurgy and testing.

6. Development of a Master Plan for Occupational Education at the secondary and post-secondary levels in the college district which enhances communications and curriculum development at all levels. This project has also stimulated programming by the college and area high schools for academically talented high school students.

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